We claim:-

1. A process for producing a polyamide which contains titanium dioxide pigments, which comprises

dispersing titanium dioxide pigments in a starting mixture containing water and caprolactam by means of an apparatus,

said apparatus comprising
a dispersing chamber,
a disk-shaped rotor disposed in said dispersing chamber,
a stator which has radial openings and is disposed in conjunction with said rotor in the dispersing zone of said dispersing chamber,
a product inlet on each side of said rotor, each product inlet preferably having an axial channel section such that the confluence of the two product streams is disposed in the outer peripheral region of the rotor disk, and
a product outlet at the outer periphery of said dispersing zone of said dispersing chamber,

by feeding the titanium dioxide pigments through one of said product inlets and the starting mixture, containing water and caprolactam, through the other one of said product inlets, to said dispersing chamber, and obtaining a product mixture, containing water, caprolactam and the titanium dioxide pigment used, via said product outlet,

and

polymerizing said product mixture to a polyamide containing titanium dioxide pigments.

2. A process as claimed in claim 1, wherein the starting mixture further comprises a dispersing assistant.

3. A process as claimed in claim 1 or 2, wherein water is removed from the product mixture before or during the polymerization.

4. A process as claimed in any of claims 1 to 3, wherein caprolactam is added to the product mixture before or during the polymerization.

5. A polyamide containing titanium dioxide pigments which is obtainable by a process as claimed in any of claims 1 to 4.

6. The use of a polyamide containing titanium dioxide pigments which is obtainable by a process as claimed in any of claims 1 to 4 as a masterbatch for delustering or coloration of a polymer.